



# MOLYKOTE® G-N Metal Assembly Paste used to avoid microwelding of pipes in rock-drilling machines

Lubricant application story: Threaded connections

**MOLYKOTE® product**  
MOLYKOTE® G-N Metal Assembly Paste

**Market segment**  
Mining

**Component/application**  
Threaded connections

**Major market**  
Maintenance, repair & overhaul (MRO)

## Customer's area of concern

### Customer's description of component

One of the first stages of the mining industry is to drill the ground. The rock-drilling machines are the ones that drill over 20 mts of rock and need a lubricant to stop seizure in the threaded connections of the pipes.

### Previous solution/product previously used

Zinc-based thread compound

## Operational parameters (LETS)

**Load**  
High

**Environment**  
Moist and dusty

**Temperature**  
>200°C

**Speed**  
1,000 RPM

### Process description

Before starting to drill, MOLYKOTE® G-N Metal Assembly Paste is applied over the threaded connection, letting the solid lubricants act and avoiding microwelding of the connections. After this, the pipes are assembled, and drilling begins.

**MOLYKOTE®**



## Customer's critical requirements

### Problem category

Wear/failure

### Problem details

The lubricant the customer was using was not suitable for the application and was not able to provide the correct protection to the threaded connections. It was a zinc-based thread compound unable to provide the correct torque when disassembled.

### Root-cause analysis

Microwelding on the threaded connections due to high temperature, loads and pressure

## MOLYKOTE® *Smart Lubrication*™ solution selected

### Result: Our solution

MOLYKOTE® G-N Metal Assembly Paste is not a compound or a grease; it is a lubricant paste capable of supporting extreme drilling conditions because the MoS<sub>2</sub> and other solid lubricants can avoid microwelding in applications above 400°C, with a high load.

## Learn more: Contact us

To learn more about the advantages of using MOLYKOTE® G-N Metal Assembly Paste on threaded connections in rock-drilling machines – or for other tough lubrication challenges – contact your MOLYKOTE® technical representative or visit [molykote.com](http://molykote.com).



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